

Ser. No. 10/625,997

Amendments to the Drawing

Enclosed is new sheet 5 showing new FIG. 5.

Ser. No. 10/625,997

Remarks

Claims 1-8 were pending in the application. Claims 1-5 were rejected. Claims 6-8 were withdrawn. No claims were merely objected to and no claims were allowed. By the foregoing amendment, no claims are canceled, claims 1, 3, and 4 are amended, and claims 9-20 are added. No new matter is presented.

Abstract

The Abstract was objected to. By the foregoing amendment, the Abstract has been expanded. The examiner is reminded that the word "should" in the MPEP does not indicate "must".

Specification

The specification was objected to. It was asserted: "There is no proper antecedent basis for: 'the environmental structure' and 'the means for restricting' in the specification...." In addition to *ipsis verbis* identification in the Summary, there is already clear antecedent in the Detailed Description. Specifically, the first sentence of the second paragraph of page 4 references environmental structure (with the fuselage now numbered 61). For purposes of the claim, the static ring 60 may also be regarded as environmental structure. The restricting is accomplished by means of the mode strut and is mentioned in several areas including the penultimate sentence of the first paragraph of page 7 and the fourth through sixth lines of the first full paragraph of page 5. By the foregoing amendment, *ipsis verbis* antecedent basis for this means has been added. Furthermore, *ipsis verbis* antecedent is not even required. See, *In re Lukach*, 442 F.2d 967, 969, 169 USPQ 795, 796 (CCPA 1971). See also, *Ex parte Simpson*, Appeal No. 96-2535 (BPAI nonprecedential).

Claim Objections

The recitation of "said means" was objected to where the full antecedent is "said means for restricting". In the absence of recitation of other means, the shortened form is believed unambiguously clear. However, the claims are amended to use the longer form as proposed by the examiner. The examiner is cautioned, however, that, especially in situations where longer

Ser. No. 10/625,997

functions are recited, repetition of the full function can create confusion by rendering the claim cumbersome. Subsequent shorthand usage is, therefore proper. *See, Ex parte Richards*, Appeal No. 2000-1508 (BPAI nonprecedential). *See also, Ex parte Moelands*, 3 USPQ2d 1474 (BPAI 1987).

Drawings

The drawings were objected to for failing to show the plural assemblies. Although these are unnecessary to an understanding of the invention, new FIG. 5 adds such a showing.

Claim Rejections-35 U.S.C. 112

Claims 2-4 were rejected under 35 U.S.C. 112(2). Applicants respectfully traverse the rejections.

Regarding the environmental structure and means for restricting, these are believed clear especially in view of the foregoing discussion and amendments to the specification. If the examiner believes some specific wording would be preferable, he is invited to propose it. In any event, the existing wording is believed unambiguously clear to one of ordinary skill in the art.

The rejections of claims 3 and 4 for antecedent bases in the claims are well taken. The claims have been amended to provide proper antecedent bases.

Claim Rejections-35 U.S.C. 102

Claims 1, 4, and 5 were rejected as being anticipated by Nash (US5176323). Applicants respectfully traverse the rejection.

Element 110 of Nash FIG. 7 was asserted as being the actuator linkage. That element is, however, a "compression link". The "actuator 42" is responsible for actuating the upstream/convergent flap. In that vein, however, the examiner's attention is drawn to the FIG. 2 embodiment of Nash wherein 42 is located along the downstream/divergent flap. In that FIG. 2 embodiment, however, the actuator determines the condition of the downstream/divergent flap and there is no provision for mode-induced changes. Thus, Nash does not teach the means of claim 4. For clarification, claims 1 and 4 have been amended to identify that mode changes to the downstream flap orientation are permitted (see also new claim 18). The means of claim 4 serve to

Ser. No. 10/625,997

limit the impact of such permitted changes on the throat area. Support for this amendment is found in claim 6 and paragraph 0020 of the as-filed application (0022 of the pre-grant publication) which reads "... the aerodynamic forces may then determine the mode which is nominally associated with the divergent flap interior surface angle θ ."

New independent claim 14 identifies the throat as formed along a longitudinally convex surface portion of the downstream flap. New claim 15 identifies the throat as downstream of a hinge axis coupling the upstream flap to the downstream flap. Support for these claims is found in the first paragraph of page 4 (referencing the throat along the throat convex surface portion 40). Dependent claims 9, 10, 13, 17, and 20 also reference such aspects of throat location. The Nash throat is clearly located at the downstream end of the upstream/convergent flap.

New independent claim 16 references use of a bell crank and transfer link for which support is found in the second paragraph of page 4 referencing the bell crank 72 and a pair of transfer links 78. Nash teaches no such structure. The bell crank is also referenced in new dependent claim 12. New dependent claim 11 identifies the synchronization ring referenced by 62 in that same paragraph.

New independent claim 19 identifies a relative position of an instantaneous center of rotation for which support is found in existing claim 6. Nash fails to teach such a construction.

Claims 1, 4, and 5 were rejected as being anticipated by Tseng et al. (US6240720). Applicants respectfully traverse the rejection.

Element 36 of Tseng et al. was asserted as the claimed linkage. First, that element is clearly coupled to the downstream/divergent flap 34 in a downstream half thereof rather than the upstream/forward half thereof as is identified in claim 1.

Second, that element 36 does not serve to actuate. The actuator is shown by 37 which acts on the upstream/convergent flap rather than on the downstream/divergent flap. Col. 3, lines 49-51. Thus, Tseng et al. neither anticipates nor renders unpatentable independent claims 1, 14, 16, and 19 and their dependent claims.

Third, there is no indication that any of these elements serve to minimize changes in throat area at a given design point induced by mode changes as is specified in independent claim 4. Clearly, Tseng et al. does not involve the throat location of claim 4 and its dependent claims

Ser. No. 10/625,997

and the other dependent claims regarding throat location. The Tseng et al. throat is located at the downstream end of the upstream/convergent flap rather than along the downstream/divergent flap.

There is no indication of the relative centers of rotation of independent claim 19. The direct actuation of the upstream flap would preclude this. There is no indication of the bell crank and transfer link of claim 15.

Claims 4 and 5 were rejected as being anticipated by Barcza (US5111992). Applicants respectfully traverse the rejection.

Element 16 of Barcza was asserted as the claimed actuator. Clearly, Barcza does not involve the throat location of claim 4 and its dependent claims and the other dependent claims referencing throat location. The Barcza throat is located at the downstream end of the upstream/convergent flap rather than along the downstream/divergent flap. Thus, Barcza also suffers the same additional deficiencies noted with respect to Tseng et al.

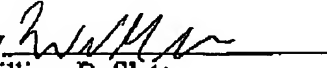
Claims 4 and 5 were rejected as being anticipated by Johnson (US6398129). Applicants respectfully traverse the rejection.

Element 23 of Johnson was asserted as the actuator. The actuator clearly acts directly upon the upstream flap. Thus, claim 1 was not so rejected. Because of this, as with Tseng et al. and Barcza, there is no indication that it serves the function of claim 4. Unlike Tseng et al. and Barcza, the Johnson throat does fall along the downstream/divergent flap. However, the direct actuation of the upstream flap determining the location of the Johnson hinge 18 merely renders Johnson equivalent to the prior art identified in the Background section of the present application.

Ser. No. 10/625,997

Accordingly, Applicant submits that claims 1-20 are in condition for allowance. Please charge any fees or deficiency or credit any overpayment to our Deposit Account of record.

Respectfully submitted,

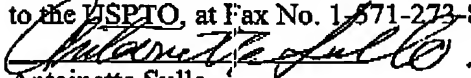
By 
William B. Slate
Attorney for Applicant
Reg. No.: 37,238

Telephone: 203-777-6628
Telefax: 203-865-0297

Date: June 6, 2006

Enclosure: New Sheet 5

I hereby certify that this correspondence is being facsimile transmitted this 6th day of June, 2006 to the USPTO, at Fax No. 1-571-273-8300.


Antoinette Sullo